



Ron Chapman, MD, MSPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

September 14, 2012

Jill Korte, P.E.  
California PWSS Program Project Officer  
US EPA - Region 9, WTR-6  
75 Hawthorne Street  
San Francisco, CA 94105


Dear Ms. Korte:

CDPH ANNUAL OPERATOR CERTIFICATION REPORT FY 2011-12

Enclosed is the California Department of Public Health's (CDPH) Annual Operator Certification Report FY 2011-12. This Workplan covers the dates of July 1, 2011 through June 30, 2012. We have also submitted an electronic version of this document to your office.

If you have any questions regarding this report, please contact Mark Bartson at (916) 449-5622 or by email at [Mark.Bartson@cdph.ca.gov](mailto:Mark.Bartson@cdph.ca.gov).

Sincerely,

  
for Leah Godsey Walker, P.E., Chief  
Division of Drinking Water  
and Environmental Management

Enclosure – Operator Certification Report Workplan

cc: Kevin Ryan  
California PWSS Program  
US EPA - Region 9, WTR-6  
75 Hawthorne Street  
San Francisco, CA 94105

Bruce Burton, DDWEM – Sacramento HQ  
Kim Wilhelm, DDWEM – Sacramento HQ  
✓ Mark Bartson, DDWEM – Sacramento HQ

**California Department of Public Health**

**Annual Operator Certification Report  
to the  
United States  
Environmental Protection Agency**

**State Fiscal Year 2011-2012**

**August 29, 2012**

# TABLE OF CONTENTS

## Baseline Standards

Authorization.....	1
Classification of Systems, Facilities, and Operators .....	1
Operator Qualifications .....	2
Enforcement .....	2
Certification Renewal.....	3
Resources Needed to Implement the Program.....	4
Recertification .....	5
Stakeholder Involvement .....	5
Program Review .....	5

# **California Operator Certification Program – Annual Report (July 1, 2011 – June 30, 2012)**

## **Baseline Standards**

### **1. Authorization**

Authorization for the California Department of Public Health (CDPH) Operator Certification program was established in 2001. The CDPH operator certification regulations (Title 22, California Code of Regulations) were developed to meet federal guidelines and requirements as well as California Health and Safety (H&S) Code Sections 106875 et. seq. Prior to 2001, California had a program to certify water treatment operators for public water systems. That program did not include certification of distribution system operators. In 2001 the certification program was broadened to include certification of operators of public water system distribution systems. In addition, the regulations contain provisions to ensure that all treatment facilities and distribution systems are classified consistent with federal guidance.

### **2. Classification of Systems, Facilities, and Operators (CCR T22, Section 64413)**

CDPH uses a five level classification system, established in regulations, for distribution systems, treatment facilities, and operators. Distribution systems are classified into categories D1 through D5 according to population served and the complexity of the distribution system. Treatment facilities are classified into categories T1 through T5 based on a calculation of points assigned based upon source water characteristics, maximum capacity, and treatment techniques utilized. Operators are required to be certified for the specific classification of distribution system or treatment facility for which they are employed.

There are approximately 7,800 public water systems in California. Of these, approximately 3,300 are considered community systems; approximately 3,200 are transient non-community systems; and approximately 1,300 are non-transient, non-community systems. CDPH's Drinking Water Field Operations Branch (FOB) Districts have classified water distribution systems statewide.

There are currently approximately 21,860 certified water treatment and/or water distribution operators in the state. Of these operators 10,538 are dual certified (hold both treatment and distribution certifications). There are 8,458 operators that hold only a distribution certificate and 2,863 operators that hold only a treatment certificate for a total certificate count of 32,397.

CDPH's estimate of overall compliance with operator certification requirements is as follows:

- Over 95 percent of the larger community public water systems (more than 1,000 service connections) consistently comply with all aspects of the operator certification regulations.

- Over 90 percent of the smaller community public water systems (fewer than 1,000 service connections) consistently comply with all aspects of the regulations.

CDPH utilizes a violation tracking database to track violations relating to operator certification requirements. CDPH is currently revising the Electronic Annual Report (submitted by public water systems to CDPH) to provide a basis for further determination of overall compliance rates with the operator certification requirements.

### **3. Operator Qualifications**

The operator certification requirements for water treatment operators and distribution operators are specified in CCR Section 63800 and CCR Section 63805, respectively. In order to become certified, operators must submit an application to CDPH and pass an exam based on the knowledge, skill, and abilities set forth in regulation.

Through the application review process, CDPH verifies that education requirements are met prior to admittance to an exam. Once an applicant has passed the exam, CDPH verifies that experience requirements have been met, if applicable. The required knowledge, skills and abilities of each certification level were developed based on job analyses conducted by Subject Matter Experts, who are typically water system operators and managers with extensive field experience.

CDPH has an ongoing validation process to ensure that exam questions are representative of operator duties and responsibilities. CDPH sponsors workshops, typically attended by Subject Matter Experts, to validate existing exam questions and to write new questions. Two workshops were held this year in Los Angeles and Sacramento. Over 100 new exam questions were proposed and 200 current questions were reviewed and validated by the subject matter experts. This process will ensure that the exams accurately test the knowledge, skills and abilities required to operate a drinking water treatment facility or water distribution system in California.

### **4. Enforcement**

Under existing regulations and the Health and Safety Code, CDPH can take enforcement actions against a certified individual, if the individual has failed to meet specified requirements and has consequently endangered public health, or a public water system, if it is determined that the system does not meet operator certification requirements.

During the time period covered by this report, CDPH's Operator Certification Unit revoked the certification of two individuals who had taken fraudulent action

related to their status as certified operators. In addition, CDPH investigated several other possibly fraudulent actions by certified operators or examinees.

For systems that are found in violation of operator certification requirements, the FOB District office or county Local Primacy Agency takes enforcement actions appropriate to the specifics of the situation considering such factors as:

- Potential threat to public health;
- Type and complexity of water treatment processes;
- Water quality issues that could result from operator error;
- Interim action that is proposed by the water system to address the problem.

Typically, the enforcement actions consist of the issuance of a citation, compliance order, or corrective action letter. In most cases, the action includes a requirement for the water system to submit a plan for bringing the water system into compliance with the operator certification requirements. Most commonly, the enforcement actions are a result of a finding that a water system does not have a chief operator certified at the required level or that the system is utilizing non-certified operators to perform duties specified in subsection (b) of Section 63770 of the California Code of Regulations.

Enforcement action often occurs in cases where the lack of a certified operator is a contributing factor to a violation or potential violation of a drinking water standard or treatment technique. In 2011, there were six enforcement actions taken against water systems resulting from not having a qualified, certified operator to oversee compliance with Disinfectant By Products.

Most importantly, however, FOB Districts and LPAs work with water systems on an on-going basis to address potential problems as they arise to ensure that enforcement actions are not required. These on-going interactions are not categorized as "enforcement actions," and are instead seen as preventative measures.

## **5. Certification Renewal**

Operators are required to renew their certificates every three years. To be eligible for certificate renewal, certified operators must complete a specified number of continuing education contact hours after the previous renewal or issuance of a certificate.

The number of required training hours increase with the level of certification and are listed in table 63840-A.



**Table 63840-A.**  
**Required Continuing Education Contact Hours for Certificate Renewal**

<i>Water Treatment Operators</i>	<i>Contact Hours Required</i>
Grade T1	12
Grade T2	16
Grade T3	24
Grade T4	36
Grade T5	36
<i>Distribution Operators</i>	
Grade D1	12
Grade D2	16
Grade D3	24
Grade D4	36
Grade D5	36

In order to ensure compliance with renewal requirements, CDPH reviews continuing education courses for subject matter content and verifies the course was taken within the renewal period. CDPH's website has a list of continuing education providers who offer acceptable courses throughout the state as well as on-line courses for operators in remote areas.

In 2011-2012, 8,305 operators renewed their certifications (2,271 Treatment operators and 6,034 Distribution operators).

## **6. Resources Needed to Implement the Program**

The Operator Certification Unit currently consists of nine staff members administering a program of approximately 32,400 certificates. The unit utilizes two FileMaker Pro databases, one for each type of certification, that work together to record operator contact information, expiration dates, dates of examination, certification, and any other relevant information. The program is fully funded from revenues generated through exam, certification, and renewal fees.

Each year the Unit, with the assistance of a contractor, administers four exams – two treatment operator and two distribution operator exams. The exams are proctored under contract by a company that specializes in this service, and are given at differing sites throughout the state. During the time period covered by this report, a total of 7,222 individuals were tested, with an overall pass rate of 64 percent. The Unit also processed 8,305 renewals and certified 4,263 new/upgraded operators.

## 7. **Recertification**

Under subsection (c) of Section 63845, CCR, a certificate that has been expired for more than one year shall not be renewed. After one year past the certificate's expiration date, the certificate is considered revoked and the holder of that certificate must re-apply for the exam and meet all the exam and certification requirements in order to be recertified. CDPH reviews the applicant's education and experience to ensure all exam and certification requirements are met. Experience gained by the operator under a previous certificate can count toward the experience requirements for the current certificate application.

## 8. **Stakeholder Involvement**

### Operator Certification Stakeholder's Group

CDPH sponsors and participates in an operator certification stakeholders' group. The group meets twice each year to discuss implementation of the operator certification regulations. Membership includes EPA, California-Nevada Section of American Waterworks Association (AWWA), Local Union 39 (representing Stationary Engineers), California Rural Water Association (CRWA), Rural Community Assistance Corporation (RCAC), water distribution and treatment instructors, and operators from large and small water systems. The group advises CDPH on any changes needed to regulatory requirements, such as number of continuing education contact hours needed, specialized training courses required, and the definition of "operator experience."

A primary issue for the stakeholder's group during the past year has been whether to allow up to two years for an operator to recertify after the expiration of a certificate. The group has supported a future revision to CDPH regulations, with possible inclusion of the limitation that the operator would only be able to obtain recertification at one level lower than the previous certification.

### California Technical Assistance Providers Stakeholders Group

Training assistance to small systems operators is provided through a stakeholder's group called California Technical Assistance Providers (CaITAP). The group includes CDPH personnel and representatives from CRWA, RCAC, University of California at Davis, Sacramento State University, the California-Nevada section of AWWA, and EPA.

## 9. **Program Review**

Program review is provided on an on-going basis by the Operator Certification Stakeholder's Group. The group has provided comments and suggestions on the CDPH certification program and has proposed changes to the regulations, specifically that the definitions of "operator experience" and "specialized training courses" be revised. Work is still in progress to finalize the proposed revisions and is expected to take several years before adopted into regulation.